

APPENDIX IV

| LAND USE/LAND COVER | AREAS IN HUC-12 SUBWATERSHEDS (ACRES) | | | | |
|------------------------------|---------------------------------------|---------------|---------------|---------------|---------------|
| | 0701 | 0702 | 0703 | 0801 | 0802 |
| Bare Rock/Sand/Clay | 4 | 4 | 52 | 7 | 15 |
| Deciduous Forest | 19,656 | 13,098 | 20,936 | 16,349 | 23,667 |
| Developed Open Space | 758 | 316 | 2,539 | 635 | 806 |
| Emergent Herbaceous Wetlands | | | | | |
| Evergreen Forest | 1,852 | 1,192 | 1,892 | 1,414 | 3,138 |
| Grassland/Herbaceous | 103 | 96 | 751 | 135 | 141 |
| High Intensity Development | | | | | |
| Low Intensity Development | 38 | 1 | 286 | 2 | 4 |
| Medium Intensity Development | | | 9 | | |
| Mixed Forest | 1,501 | 964 | 1,290 | 689 | 1,445 |
| Open Water | 312 | | 344 | 0 | |
| Pasture/Hay | 1,102 | 214 | 15,158 | 1,459 | 1,306 |
| Row Crops | 67 | 4 | 408 | 46 | 53 |
| Shrub/Scrub | 298 | 136 | 453 | 95 | 285 |
| Woody Wetlands | 131 | | 180 | 8 | 10 |
| Total | 25,822 | 16,025 | 44,298 | 20,839 | 30,870 |

Table A4-1. Land Use Distribution in the Hatchie River Watershed by HUC-12. Data are from 1992 Multi-Resolution Land Characterization (MRLC) derived by applying a generalized Anderson Level II system to mosaics of Landsat thematic mapper images collected every five years.

| HYDROLOGIC SOIL GROUPS |
|---|
| GROUP A SOILS have low runoff potential and high infiltration rates even when wet. They consist chiefly of sand and gravel and are well to excessively drained. |
| GROUP B SOILS have moderate infiltration rates when wet and consist chiefly of soils that are moderately deep to deep, moderately to well drained, and moderately coarse to coarse textures. |
| GROUP C SOILS have low infiltration rates when wet and consist chiefly of soils having a layer that impedes downward movement of water with moderately fine to fine texture. |
| GROUP D SOILS have high runoff potential, very low infiltration rates, and consist chiefly of clay soils. |

Table A4-2. Hydrologic Soil Groups in Tennessee as Described in WCS. Soils are grouped into four hydrologic soil groups that describe a soil's permeability and, therefore, its susceptibility to runoff.

| STATION | LOCATION | HUC 12 | Area | 1Q10 | 7Q10 | 3Q20 |
|----------|--------------------|--------------|----------|----------|----------|----------|
| 03455000 | French Broad River | 060101050703 | 1,858.00 | 476.3140 | 532.7300 | 427.5850 |

Table A4-3. United States Geological Survey Continuous Record Gaging Stations in the Upper French Broad River Watershed. Additional information may be found at: <http://water.usgs.gov/osw/streamstats/>

| AGENCY | STATION | LOCATION | HUC 12 |
|--------------------------------------|--------------|------------------------------------|--------------|
| TDEC | 1340 | French Broad River | 060101050701 |
| TDEC | 1350 | French Broad River | 060101050701 |
| USFS | 40201 | Brushy Creek | 060101050701 |
| USFS | 40202 | Brushy Creek | 060101050701 |
| USFS | 40203 | Brushy Creek | 060101050701 |
| USFS | 40204 | Brushy Creek | 060101050701 |
| USFS | 40205 | Moneyham Creek | 060101050701 |
| USFS | 40206 | Moneyham Creek | 060101050701 |
| USFS | 40207 | Moneyham Creek | 060101050701 |
| USFS | 40208 | Moneyham Creek | 060101050701 |
| USFS | 40209 | Moneyham Creek | 060101050701 |
| USFS | 40210 | Moneyham Creek | 060101050701 |
| USFS | 40211 | Moneyham Creek | 060101050701 |
| USFS | 40212 | Brushy Creek | 060101050701 |
| USFS | 40213 | Brushy Creek | 060101050701 |
| USFS | 40214 | Brushy Creek | 060101050701 |
| TVA | 475975 | French Broad River | 060101050701 |
| TDEC | 1355 | French Broad River @ RM 84.0 | 060101050703 |
| USEPA | 471005 | French Broad River | 060101050703 |
| TVA | 475086 | French Broad River @ RM 77.5 | 060101050703 |
| TVA | 476014 | French Broad River @ RM 82.1 | 060101050703 |
| TVA | 477478 | French Broad River @ RM 78.0 | 060101050703 |
| TDEC | CLEAR001.2CO | Clear Creek | 060101050703 |
| TDEC | BAKER000.1CO | Baker Branch @ RM 0.1 | 060101050801 |
| EPA Environmental Resource Lab | 2A07801L | Gulf Fork Big Creek | 060101050802 |
| EPA Environmental Resource Lab | 2A07801U | Gulf Fork Big Creek | 060101050802 |
| TDEC | GFBIG002.9CO | Gulf Fork of Big Creek @ RM .02 | 060101050802 |
| TDEC | GRASS000.2CO | Grassy Fork @ RM 0.2 | 060101050802 |

Table A4-4. STORET Water Quality Monitoring Stations in the Upper French Broad River Watershed. EPA, Environmental Protection Agency; TDEC, Tennessee Department of Environment and Conservation; TVA, Tennessee Valley Authority; USFS, United States Forest Service.

| PERMIT NUMBER | COUNTY | DESCRIPTION | WATERBODY | HUC-12 |
|---------------|--------|--|---|--------------|
| NR0603.012 | Cocke | Utility Line Crossings | Long Creek and UT to French Broad River | 060101050701 |
| NRS05.324 | Cocke | Surveying and Geotechnical Exploration | French Broad River | 060101050701 |
| NRS02.445 | Greene | Road Repair | Paint Creek | 060101050702 |
| NR0603.154 | Cocke | Construction and Removal of Minor Road Crossings | Not Identified | 060101050703 |
| NRS04.447 | Cocke | Small Structure Replacement | Clear Creek South Fork | 060101050703 |
| NRS04.447B | Cocke | Small Structure Replacement | Clear Creek North Fork | 060101050703 |
| NRS04.447C | Cocke | Small Structure Replacement | Oven Creek | 060101050703 |
| NRS05.423 | Cocke | Minor Alterations to Wetlands | French Broad River, Clear Creek, and Ground Water | 060101050703 |
| NRS05.423B | Cocke | Construction and Removal of Minor Road Crossings | Clear Creek | 060101050703 |
| NRS05.423C | Cocke | Minor Alterations to Wetlands | Ground Water | 060101050703 |
| NRS06.016 | Cocke | Construction of Outfall Structures | French Broad River | 060101050703 |
| NRS06.131 | Cocke | Construction and Removal of Minor Road Crossings | French Broad River | 060101050703 |
| NRS05.369 | Cocke | Bank Stabilization | Not Identified | 060101060801 |
| NR0603.051 | Cocke | Construction and Removal of Minor Road Crossings | Gulf Fork Big Creek | 060101060802 |
| NRS02.332 | Cocke | Bridges and Approaches | Gulf Fork Big Creek | 060101060802 |
| NRS02.332B | Cocke | Bridges and Approaches | Gulf Fork Big Creek | 060101060802 |
| NRS02.332C | Cocke | Bridges and Approaches | Gulf Fork Big Creek | 060101060802 |
| NRS02.332D | Cocke | Bridges and Approaches | Gulf Fork Big Creek | 060101060802 |
| NRS04.296 | Cocke | Construction and Removal of Minor Road Crossings | Gulf Fork Creek | 060101060802 |
| NRS04.296B | Cocke | Construction and Removal of Minor Road Crossings | Gulf Fork Creek | 060101060802 |
| NRS04.296C | Cocke | Construction and Removal of Minor Road Crossings | Gulf Fork Creek | 060101060802 |
| NRS05.274 | Cocke | Construction and Removal of Minor Road Crossings | Gulf Fork Big Creek | 060101060802 |
| NRS06.044 | Cocke | Construction and Removal of Minor Road Crossings | Gulf Fork Big Creek | 060101060802 |

Table 4-5. ARAPs (Aquatic Resource Alteration Permit) issued June 2002 through June 2007 in the Tennessee Portion of the Upper French Broad River Watershed.

UT, Unnamed Tributaries.

| PERMIT NUMBER | COUNTY | PERMITEE: DISCRIPTION | AREA | WATERBODY | HUC-12 |
|---------------|--------|--|--------|---|--------------|
| TNR132157 | Cocke | Cooke County Hwy Dept: Widening of County Road | 0.40 | Clear Creek & Oven Creek | 060101050703 |
| TNR190343 | Cocke | TDOT: SR 160 Road Maintenance and Replace Small Structures | 1.44 | UT to French Broad River @ RM 76 | 060101050703 |
| TNR190447 | Cocke | TDOT: Trenton Hollow Road | 2.00 | Clear Creek | 060101050703 |
| TNR190485 | Cocke | TDOT: Hwy 35 | 155.70 | Clear Creek | 060101050703 |
| TNR190515 | Cocke | TDOT: SR-35/SR-340, Replace Drainage Structures | 4.91 | North Fork of Clear Creek & South Fork of Clear Creek | 060101050703 |
| TNR190573 | Cocke | TDOT: SR-35 New Alignment | 262.00 | Clear Creek & French Broad River | 060101050703 |
| TNR190702 | Cocke | TDOT: Replace Bridge | 15.00 | French Broad River | 060101050703 |
| TNR131757 | Cocke | Landstar Development, LLC: Cherokee Falls | 181.00 | Raven's Branch and UT to Raven's Branch | 060101050802 |
| TNR132221 | Cocke | John B. Holloway & Don Norwood: Big Creek Bend | 5.00 | Gulf Fork Big Creek | 060101050802 |
| TNR190317 | Cocke | TDOT: Bridge and Approaches over Gulf Fork Big Creek | 5.86 | Gulf Fork Big Creek, Trail Branch Big Creek, French Broad River | 060101050802 |
| TNR190546 | Cocke | TDOT: Replace Bridge over Gulf Fork Big Creek | 1.20 | Gulf Fork Big Creek | 060101050802 |

Table 4-6. CGPs (Construction General Permit) issued May 2002 through June 2007 in the Tennessee Portion of the Upper French Broad River Watershed. Area, acres of property associated with construction activity; UT, Unnamed Tributaries.

| PERMIT NUMBER | FACILITY NAME | SIC | SIC NAME | MADI | WATERBODY | HUC-12 |
|---------------|---------------------------------|------|------------------|-------|----------------------|--------------|
| TN0054861 | Parrottsville Elementary School | 4952 | Sewerage Systems | Minor | Clear Creek @ RM 6.4 | 060101050703 |
| TN0067318 | Parrottsville STP | 4952 | Sewerage Systems | Minor | Clear Creek @ RM 6.0 | 060101050703 |

Table 4-7. Municipal and Industrial Permittees in the Tennessee Portion of the Upper French Broad River Watershed. SIC, Standard Industrial Classification; MADI, Major Discharge Indicator.

| PERMIT NUMBER | FACILITY NAME | SECTOR | AREA | WATERBODY | HUC-12 |
|------------------|---|---------|-------|-----------------------------|--------------|
| TNR053442 | TRANSFLO Terminal Services, Inc. (Knoxville) | P | 3.00 | Tennessee River | 060101050701 |
| TNR054013 | Del Rio Wood Yard | A | 1.00 | French Broad River | 060101050701 |
| TNR054476 | Morris Coupling Company, Inc. | AA | 21.46 | French Broad River | 060101050701 |
| TNR054513 | Fleming Machine & Welding, Inc | AB | 1.00 | Metropolitan Storm Sewer | 060101050701 |
| TNR053078 | Smurfit Stone Container Enterprises | B | 2.60 | Unnamed Stream | 060101050703 |
| TNR053505 | Flura Corporation | C,L,P,K | 30.00 | French Broad River | 060101050703 |
| TNR054236 | Hearthstone, Inc. | A | 10.00 | UT to French Broad River | 060101050703 |

Table 4-8. Permitted TMSP (Tennessee Multi-Sector Permit) facilities in the Tennessee Portion of the Upper French Broad River Watershed. Area, acres of property associated with industrial activity; UT, Unnamed Tributaries. Sector details found in Table 4-9.

| SECTOR | TMSP SECTOR NAME |
|---------------|---|
| A | Timber Products Facilities |
| AA | Facilities That Manufacture Metal Products including Jewelry, Silverware and Plated Ware |
| AB | Facilities That Manufacture Transportation Equipment, Industrial or Commercial Machinery |
| AC | Facilities That Manufacture Electronic and Electrical Equipment and Components, Photographic and Optical Goods |
| AD | Facilities That Are Not Covered Under Sectors A Thru AC (Monitoring Required) |
| AE | Facilities That Are Not Covered Under Sectors A Thru AC (Monitoring Not Required) |
| B | Paper and Allied Products Manufacturing Facilities |
| C | Chemical and Allied Products Manufacturing Facilities |
| D | Asphalt Paving, Roofing Materials, and Lubricant Manufacturing Facilities |
| E | Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing Facilities |
| F | Primary Metals Facilities |
| G | Metal Mines (Ore Mining and Dressing) (RESERVED) |
| H | Inactive Coal Mines and Inactive Coal Mining-Related Facilities |
| I | Oil or Gas Extraction Facilities |
| J | Construction Sand and Gravel Mining and Processing and Dimension Stone Mining and Quarrying Facilities |
| K | Hazardous Waste Treatment Storage or Disposal Facilities |
| L | Landfills and Land Application Sites |
| M | Automobile Salvage Yards |
| N | Scrap Recycling and Waste and Recycling Facilities |
| O | Steam Electric Power Generating Facilities |
| P | Vehicle Maintenance or Equipment Cleaning areas at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, the United States Postal Service, or Railroad Transportation Facilities |
| Q | Vehicle Maintenance Areas and Equipment Cleaning Areas of Water Transportation Facilities |
| R | Ship or Boat Building and Repair Yards |
| S | Vehicle Maintenance Areas, Equipment Cleaning Areas or From Airport Deicing Operations located at Air Transportation Facilities |
| T | Wastewater Treatment Works |
| U | Food and Kindred Products Facilities |
| V | Textile Mills, Apparel and other Fabric Product Manufacturing Facilities |
| W | Furniture and Fixture Manufacturing Facilities |
| X | Printing and Platemaking Facilities |
| Y | Rubber and Miscellaneous Plastic Product Manufacturing Facilities |
| Z | Leather Tanning and Finishing Facilities |

Table A4-9. TMSP Sectors and Descriptions.